



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,482	08/22/2003	Michael L. Connell	HES 2003-IP-009847U1	9421
29920	7590	12/20/2004	EXAMINER	
JOHN W. WUSTENBERG P.O. BOX 1431 DUNCAN, OK 73536			NEUDER, WILLIAM P	
			ART UNIT	PAPER NUMBER
			3672	
DATE MAILED: 12/20/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/646,482

Applicant(s)

CONNELL, MICHAEL L.

Examiner

William P Neuder

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-13 and 15-23 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 14, 24 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/22/03, 10/25/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 6-13 and 15-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Cornette et al 5,335,727.

Cornette discloses a ball dropping assembly and method of operating the downhole ball dropping assembly. Looking at Figures 3 and 5, figure 3 showing the actuating ball 34 retained and figure 5 showing the actuating ball released, the ball assembly 42 is placed within housing 40. Housing 40 is part of the tool string as shown in fig. 1. Seat 64 is in the housing and receives a releasing device 82. The actuating device 34 has a larger diameter than the releasing device. The actuating device is released when the releasing device engages the seat and pressure within the tool string is increased to a desired pressure at which shear pin 78 shears. As to claims 2 and 21, means 34 is a ball. As to claim 3, member 44 is a ball cage and the ball 34 is retained within the cage. As to claim 6, a seat sleeve 62,68 is disposed in the housing and the upper end of the sleeve defines the seat. Sleeve 62 is releasably connected to the ball cage and downward movement of the sleeve causes the ball drop cage to release the ball 34. As to claim 7, the sleeve is releasable through pin 78. As to claim 8, the sleeve only moves after the releasing ball seats in the seat. As to claim 9, housing 40 is

Art Unit: 3672

located above a seat for actuating ball 34. As to claim 10, sleeve 62 moves after ball 82 is landed. As to claims 11 and 18, cage assembly 44 is considered to move from a ball retaining position to a ball releasing position when the sleeve 62 is moved downward. As to claim 12, the seat and ball are releasing seat and ball. As to claim 13, ball 82 blocks the central flow passage. As to claim 15, the device is positioned within the tool string and lowered into the well. Ball 82 is the flow restriction that is displaced into the tool. As to claims 16 and 17, ball 82 blocks the flow path. Once pin 78 shears and the sleeve begins to move, a bypass flow path through ports 46 is opened. As to claims 19 and 22, pressure within the tool string is increased after the ball 82 seats, which causes the actuating ball to be released. As to claim 20, a well is drilled prior to using the tool and the well is cased. As to claim 23, downward movement of the sleeve causes the ball 34 to be released.

***Allowable Subject Matter***

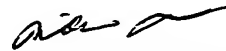
Claims 4,5,14,24 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P Neuder whose telephone number is 703-308-2150. The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J Bagnell can be reached on 703-308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
William P Neuder  
Primary Examiner  
Art Unit 3672

W.P.N.